19/09/2007,10519807IIa.trn

Connecting via Winsock to STN

Welcome to STN International!   Enter x:x

LOGINID:SSPTASXY1626
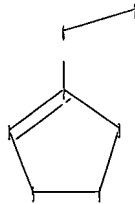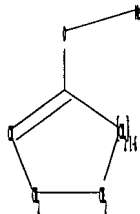
PASSWORD:
 * * * * * * RECONNECTED TO STN INTERNATIONAL * * * * * *
SESSION RESUMED IN FILE 'REGISTRY' AT 07:06:13 ON 19 SEP 2007
FILE 'REGISTRY' ENTERED AT 07:06:13 ON 19 SEP 2007
COPYRIGHT (C) 2007 American Chemical Society (ACS)

COST IN U.S. DOLLARS   SINCE FILE   TOTAL
                                                ENTRY   SESSION
FULL ESTIMATED COST   172.55   172.76

=>
Uploading C:\Program Files\Stnexp\Queries\10519807reactIIa.str
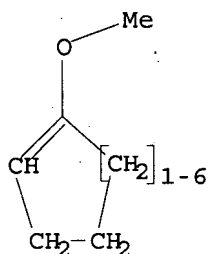

chain nodes :
6   7
ring nodes :
1   2   3   4   5
chain bonds :
2-6   6-7
ring bonds :
1-2   1-5   2-3   3-4   4-5
exact/norm bonds :
2-6
exact bonds :
1-2   1-5   2-3   3-4   4-5   6-7
isolated ring systems :
containing 1 :

Match level :
1:Atom   2:Atom   3:Atom   4:Atom   5:Atom   6:CLASS   7:CLASS

L6   STRUCTURE UPLOADED

=> d l6
L6 HAS NO ANSWERS
L6   STR

Young, Shawquia, Page 1

Structure attributes must be viewed using STN Express query preparation.

=> s l6
SAMPLE SEARCH INITIATED 07:06:33 FILE 'REGISTRY'
SAMPLE SCREEN SEARCH COMPLETED -   34245 TO ITERATE

   5.8% PROCESSED   2000 ITERATIONS   0 ANSWERS
INCOMPLETE SEARCH (SYSTEM LIMIT EXCEEDED)
SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS: ONLINE   **COMPLETE**
                         BATCH   **COMPLETE**
PROJECTED ITERATIONS: 673838 TO   695962
PROJECTED ANSWERS: 0 TO   0

L7   0 SEA SSS SAM L6

=> s l6 full
FULL SEARCH INITIATED 07:06:41 FILE 'REGISTRY'
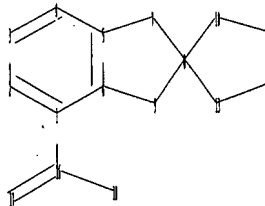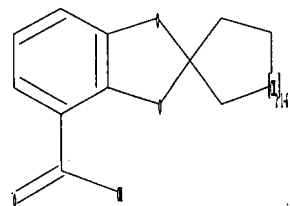FULL SCREEN SEARCH COMPLETED -   686421 TO ITERATE

100.0% PROCESSED   686421 ITERATIONS   21 ANSWERS
SEARCH TIME: 00.00.02

L8   21 SEA SSS FUL L6

=>
Uploading C:\Program Files\Stnexp\Queries\10519807react.str

chain nodes :
16 17 18
ring nodes :
1   2   3   4   5   6   7   8   9   10 11 12 13
chain bonds :
1-16 16-17 16-18
ring bonds :
1-2 1-6 2-3 3-4 4-5 5-6 5-7 6-9 7-8 8-9 8-10 8-13 10-11 11-12 12-13
exact/norm bonds :

Young, Shawquia, Page 2

5-7 6-9 7-8 8-9 8-10 8-13 10-11 11-12 12-13
exact bonds :
1-16
normalized bonds :
1-2 1-6 2-3 3-4 4-5 5-6 16-17 16-18

Match level :
1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:Atom 8:Atom 9:Atom 10:Atom
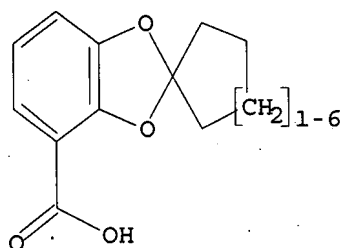11:Atom 12:Atom 13:Atom 16:CLASS 17:CLASS 18:CLASS

L9   STRUCTURE UPLOADED

=> d 19
L9 HAS NO ANSWERS
L9   STR

Structure attributes must be viewed using STN Express query preparation.

=> s 19
SAMPLE SEARCH INITIATED 07:07:16 FILE 'REGISTRY'
SAMPLE SCREEN SEARCH COMPLETED -   7 TO ITERATE

100.0% PROCESSED   7 ITERATIONS   0 ANSWERS
SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS: ONLINE **COMPLETE**
                        BATCH   **COMPLETE**
PROJECTED ITERATIONS: 7 TO   298
PROJECTED ANSWERS: 0 TO   0

L10   0 SEA SSS SAM L9

=> s 19 full
FULL SEARCH INITIATED 07:07:20 FILE 'REGISTRY'
FULL SCREEN SEARCH COMPLETED -   74 TO ITERATE

100.0% PROCESSED   74 ITERATIONS   4 ANSWERS
SEARCH TIME: 00.00.01

L11   4 SEA SSS FUL L9

=> file hcaplus
COST IN U.S. DOLLARS   SINCE FILE   TOTAL
                                            ENTRY   SESSION

Young, Shawquia, Page 3

19/09/2007,10519807IIa.trn

FULL ESTIMATED COST   516.75   516.96

=> s l3/P and l8/ract and l11/ract
             3 L3/P
           345 L8
       3024927 RACT/RL
           255 L8/RACT
               (L8 (L) RACT/RL)
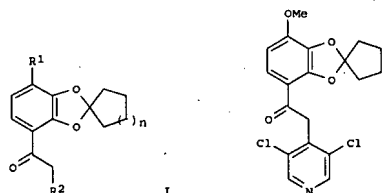   6 L11
       3024927 RACT/RL
             6 L11/RACT
               (L11 (L) RACT/RL)
L12   1 L3/P AND L8/RACT AND L11/RACT

=> d ed abs ibib hitstr tot   /

L12 ANSWER 1 OF 1 HCAPLUS COPYRIGHT 2007 ACS on STN
ED   Entered STN: 18 Jan 2004
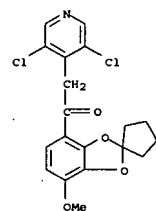GI

I   II

AB   This invention pertains to a method for producing 1,3-benzodioxole derivs.
     with general formula of I [wherein R1 = OH or (un)substituted alkoxy; R2 = (un)substituted (hetero)aryl; n = 1-6]. For example, 2,3,4-trimethoxybenzoic acid was treated with 55% aqueous HI in AcOH to give 2,3-dihydroxy-4-methoxybenzoic acid (73%). The above compound was reacted with 1-methoxycyclopentene in cyclopentanone, followed by the addition of BuI in DMF in the presence of K2CO3 to provide 7-methoxy-1,3-benzodioxole-2-spirocyclopentane-4-carboxylic acid Bu ester. The ester obtained was reacted with 3,5-dichloro-4-picoline in THF in the presence of LiN(TMS)2 to afford II in 54% total yield. This invention provides a simple method to make 1,3-benzodioxole derivs. in high yields and large scale. I are useful compds. or intermediates as PDE IV inhibitors (no data).

ACCESSION NUMBER: 2004:41458 HCAPLUS
DOCUMENT NUMBER: 140:111406
TITLE: Process for preparation of 1,3-benzodioxole
                         derivatives
INVENTOR(S):   Atsumi, Toshiyuki; Yanagisawa, Arata; Chujo, Iwao;
                         Tsumuki, Hiroshi; Mohri, Shinichiro
PATENT ASSIGNEE(S):   Kyowa Hakko Kogyo Co., Ltd., Japan
SOURCE: PCT Int. Appl., 38 pp.
                         CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

       PATENT NO.   KIND   DATE   APPLICATION NO.   DATE
       ---------------   ----   --------   --------------------   --------

L12 ANSWER 1 OF 1 HCAPLUS COPYRIGHT 2007 ACS on STN   (Continued)
     WO 2004005276   A1   20040115   WO 2003-JP8478   20030703
      W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,
         CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH,
         GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KR, KZ, LC, LK, LR, LS,
         LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG,
         PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR,
         TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW
     RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY,
         KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES,
         FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR,
         BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG
     CA 2491464   A1   20040115   CA 2003-2491464   20030703
     AU 2003252467   A1   20040123   AU 2003-252467   20030703
     EP 1535920   A1   20050601   EP 2003-762875   20030703
      R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
         IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK
     US 2005245750   A1   20051103   US 2004-519807   20041229
PRIORITY APPLN. INFO.:   JP 2002-194273   A 20020703

                                               WO 2003-JP8478   W 20030703

OTHER SOURCE(S):   CASREACT 140:111406; MARPAT 140:111406
IT   1072-59-9, 1-Methoxycyclopentene
     RL: RCT (Reactant); RACT (Reactant or reagent)
         (preparation of benzodioxole derivs.)
RN   1072-59-9 HCAPLUS
CN   Cyclopentene, 1-methoxy- (9CI) (CA INDEX NAME)

IT   185407-83-4P
     RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation);
     RACT (Reactant or reagent)
         (preparation of benzodioxole derivs.)
RN   185407-83-4 HCAPLUS
CN   Spiro[1,3-benzodioxole-2,1'-cyclopentane]-4-carboxylic acid, 7-methoxy-
     (9CI) (CA INDEX NAME)

IT   185406-34-2P
     RL: SPN (Synthetic preparation); PREP (Preparation)

L12 ANSWER 1 OF 1 HCAPLUS COPYRIGHT 2007 ACS on STN   (Continued)
     (prepn. of benzodioxole derivs.)
RN   185406-34-2 HCAPLUS
CN   Ethanone,
     2-(3,5-dichloro-4-pyridinyl)-1-(7-methoxyspiro[1,3-benzodioxole-
     2,1'-cyclopentan]-4-yl)- (9CI) (CA INDEX NAME)
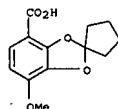

REFERENCE COUNT: 2   THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS
                                 RECORD. ALL CITATIONS AVAILABLE IN THE RE
FORMAT